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Patent Claims:

1. Motor brake device for a turbocharged internal combustion engine (1),

with an at least two-stage charge system (10), which includes at least one high-pressure stage (11) as well as at least one low-pressure stage (12) connected in the exhaust gas flow downstream of the high-pressure stage (11) and upstream in the charge air flow,

with at least one exhaust gas line (20, 20A, 20B, 21, 22) connected with the outlet channels (8) of the internal combustion engine (1) and connected downstream of the internal combustion engine (1),

with at least one first closing body (30), which is provided in an area of the exhaust gas line downstream of the high-pressure stage (11) and/or the low-pressure stage (12), wherein the first closing body (30) is constructed in such a manner, that the exhaust gas flow-through and thereby the thereupon dependent pressure (P1) in the exhaust gas line (20, 20A, 20B, 21, 22) is so variable, that thereby the motor brake power can be variably adjusted as required.

2. Motor brake device according to Claim 1, thereby characterized, that the closing body (30) is controllable or adjustable.

3. Motor brake device according to one of the preceding claims, thereby characterized, that the first closing body (30) is a control valve (30) or an exhaust gas brake flap or an exhaust gas throttle valve.

4. Motor brake device according to one of the preceding claims, thereby characterized, that an exhaust gas recirculation line (32, 35) is provided, which includes at least one exhaust gas return line (32), via which a portion of the exhaust gas can be supplied from an exhaust gas line (20, 20A, 20B) upstream of a turbine (13, 13A, 13B) of the high-pressure stage (11) to a charge air line (25) behind a compressor (14) of the high-pressure stage (11).

5. Motor brake device according to Claim 4, thereby characterized, that in the exhaust gas return line (32) no one-way valve is provided and wherein a first pressure (P1) in the exhaust gas line (20, 20A, 20B) ahead of the turbine (13, 13A, 13B) is continuously greater than a second pressure (P2) in the charge air line (25) downstream of the compressor (14).

6. Motor brake device according to one of Claims 4 or 5, thereby characterized, that a flow-through restrictor (35) is provided, which is located in the exhaust gas return line (32) and via which it is determined which proportion of the exhaust gas is returned via the exhaust gas return line (32) into the charge air line (25).

7. Motor brake device according to one of the preceding claims, thereby characterized, that the turbocharger (10) includes the following elements:

- the high-pressure stage (11) includes at one high-pressure turbine (13, 13A, 13B) in the exhaust gas line and at least one high pressure compressor (14) in the charge air side, which are coupled to each other via an intermediate common shaft (15);
- the low-pressure stage (12) includes at least one low pressure turbine (16) in the exhaust gas flow and at least one

low-pressure compressor (17) in the charge air flow, which are coupled with each other via a second shaft (18) located between them;

- at least one charge air cooler (26, 27) is provided, which is located in the charge air side between the compressor (14, 17) and the charge air inlet (17) of the internal combustion engine (1).

8. Motor brake device according to one of the preceding claims, thereby characterized, that at least one of the turbines (13, 16) is a turbine with variable geometry.

9. Motor brake device according to one of the preceding claims, thereby characterized, that at least one turbine (13, 13A, 13B) of the turbocharger (10) is a twin flow turbine (13A, 13B), in which two turbine wheels (13A, 13B) are arranged parallel to each other.

10. Motor brake device according to Claim 9, thereby characterized, that the two turbine wheels (13A, 13B) of the twin flow turbine (13A, 13B) have an exhaust gas channel with varying flow through cross-section.

11. Motor brake device according to one of the preceding claims, thereby characterized, that each high-pressure turbine (13, 13A, 13B) is provided in parallel arrangement with at least one bypass line (33A, 33B) with a respective therein associated second closing body (34A, 34B).

12. Motor brake device according to one of Claims 9-11, thereby characterized, that the respective second closing bodies (34A, 34B) provided respectively in the bypass lines (33A, 33B) of the twin flow turbine (13) are designed to be controllable or adjustable independently of each other.

13. Motor brake device according to one of the preceding claims, thereby characterized, that at least one closing body (30, 34A, 34B) is a valve and/or restrictor and/or flap and/or slide valve.

14. Motor brake device according to one of the preceding claims, thereby characterized, that a control device (40) is provided, which provides a control or adjustment signal, via which the first closing body (30) and/or the second closing body (34A, 34B) and/or the flow through restrictor (35) and/or the turbines (13, 16) with variable turbine geometry are adjustable or controllable.

15. Motor brake device according to Claim 14, thereby characterized, that the control device (40) is a component of the motor control unit (ECU), which includes a program controlled unit, in particular a microprocessor or microcontroller.

16. Motor brake device according to one of the preceding claims, thereby characterized, that the control or adjusting signal is an electric or pneumatic or hydraulic signal.

17. Motor brake device according to one of the preceding claims, thereby characterized, that at least one of the closing bodies (30, 34A, 34B) or the flow through restrictor (35) is integrated in the housing of the turbocharger (10).

18. Process for operating a motor brake device for a turbocharged internal combustion engine (1) according to one of the preceding claims, thereby characterized, that by means of the control device (40) a first pressure (P1) is adjusted in the exhaust gas line (20, 20A, 20B) located a head of the

high-pressure turbine (13) to a predetermined value depending upon a brake mode.

19. Process according to Claim 18, thereby characterized, that the first pressure (P1) during braking operation is so adjusted that it is always greater than a second pressure (P2) in the charge air line (25) located downstream of the high-pressure compressor (14).

20. Process according to one of Claims 18 or 19, thereby characterized, that the first pressure (P1) and/or the second pressure (P2) is so adjusted that it is kept constant during the braking operation of the turbocharger (10).

21. Process according to one of Claims 18-20, thereby characterized, that the adjustment of the first pressure (P1) and/or the second pressure (P2) is achieved by influencing the flow through cross-section of a exhaust gas line (22) located behind the low-pressure turbine (16), in that the closing body (30) is opened more or less strongly depending upon the desired flow through cross section.

22. Process according to one of claims 18 - 21, thereby characterized, that the adjustment of the first pressure (P1) and/or the second pressure (P2) is adjusted by influencing the flow through cross-section of a channel of at least one turbine (13, 13A, 13B, 16), in that the turbine channel is more or less strongly opened depending upon the desired flow through cross-section.

23. Process according to one of claims 18 - 22, thereby characterized, that the adjustment of the first pressure (P1) and/or the second pressure (P2) is adjusted by influencing the flow through cross-section of at least additional closing bodies (34A, 34B), in that the second closing body (34A, 34B)

is more or less strongly opened depending upon the desired flow through cross-section.

24. Internal combustion engine (1)

with a motor block, which includes at least one cylinder (2) and which includes at least one charge air inlet (7) and at least one exhaust gas output (8),

with a charge air system (10) according to one of claims 1 - 17 as brake device.

25. Internal combustion engine according to Claim 24, thereby characterized, that the charge air system (16) is the turbocharger (10).

26. Internal combustion engine according to one of Claims 24 or 25, thereby characterized, that the internal combustion engine (1) is a gasoline motor or a diesel motor.

27. Internal combustion engine according to one of Claims 24 - 26, thereby characterized, that at least one first catalyst is provided, which is located downstream of the turbocharger (10) in series.